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TODD N. HATHAWAY			ADAMS, GREGORY W	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/624,820	RALLIS, JOHN H.	
	Examiner	Art Unit	
	GREGORY W. ADAMS	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 April 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 and 27-29 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-17 and 29 is/are rejected.
 7) Claim(s) 27 and 28 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) Notice of Informal Patent Application
 6) Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim element "means for propelling" (claim 1, line 18) is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. The written description only implicitly or inherently sets forth the corresponding structure, material, or acts that perform the claimed function. A thorough search of the complete disclosure does not reveal "propel" or "propelling". Thus, pursuant to 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181, applicant is required to:

- (a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or
- (b) Amend the written description of the specification such that it expressly recites the corresponding structure, material, or acts that perform the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or
- (c) State on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Applicant has invoked 35 USC 112, sixth paragraph. This chart relates the equivalent structure relative to the respective function as interpreted from the relevant sections within the specification.

Claim 1	
line 18: means for propelling said rows of pallets in first and second generally horizontal directions	conveyor 202 (P27/L27)
line 23: means for selectively moving said traveling conveyor between: (i), (ii) & (iii)	conveyor deck 164...supported from chassis 166; wheels 172 support chassis 166 (P16/L11-17)
Claim 3 , line 3: means for elevating said deck	jack mechanism 168 (P26/L12) or equivalent (P26/L16)
Claim 7 , line 3: means for selectively diverting said palletized cargo from said main portion...onto said branch portion	sweep arm (P30/L31)
Claim 8 , line 5: means for selectively extending said sweep arm from a retracted position ...to an extended position	cylinder, rod 240 (P30/L32)
Claim 9 , line 5: means for displacing said bypass segment so as to form a gap	hydraulic cylinder 246 (P31/L15)

between said branch portion...and said loading/unloading conveyor.	
Claim 10	
line 5: means for extending said dock member into an interior of a transport vehicle	motor within a motor housing 64a (P16/L25-27)
line 8: means for selectively restraining said load of palletized cargo within said interior of said vehicle	cargo restraining mechanism (P14/L24)
Claim 12 , line 3: means for selectively transferring said palletized cargo from said loading/unloading conveyor to said extensible dock member	steel pusher plate 128 (P21/L24)
Claim 13 , line 7: means for selectively extending said push plate	linear actuator 130a (P21/L30)
Claim 14 , line 3: means for selectively transferring said palletized cargo from said extensible dock member to said loading/unloading conveyor	paddle 112 (P25/L9-10)
Claim 15	
line 5: means for selectively moving said unloading paddle from a retracted position in which unloading paddle is positioned beneath an upper surface...to a deployed position.	drive chains 110a, 110b (P18/L32-33)
line 10: means for translating said unloading paddle in said deployed position from said outer end...to proximate an inner end	drive chains 110a, 110b (P18/L32-33)

Claim 16	
line 6: means for extending said dock member into an interior of a...vehicle	motor within a motor housing 64a (P16/L25-27)
line 9: means for selectively restraining said load	cargo restraining mechanism (P14/L24)
line 12: means for selectively transferring said palletized cargo from said extensible dock member to a loading/unloading conveyor	paddle 112 (P25/L9-10)
line 17: means for selectively moving said unloading paddle from a retracted position...to a deployed position	drive chains 110a, 110b (P18/L32-33)
line 20: means for translating said unloading paddle in said deployed position from said outer end of said plate member to proximate an inner end	drive chains 110a, 110b (P18/L32-33)
Claim 29 , line 26: means for selectively moving said traveling conveyor between: (i), (ii) & (iii).	conveyor deck 164...supported from chassis 166; wheels 172 support chassis 166 (P16/L11-17)

Claims 1-3, 5-6 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staeg (DE 4309338 C2) (previously cited) in view of Atwater (US 3,661,280) (previously cited) and further in view of Suizu (US 3,921,828) (previously cited) and Proske (US 5,615,992) (previously cited).

With respect to claims 1-3 & 6, Staeg discloses a warehousing system comprising:

- a traveling conveyor of sufficient length to support rows of multiple pallets, either simultaneously or individually using forks;
- a plurality of storage racks (FIG. 4);
- a traveling conveyer comprising-
 - means 2.2.1.4 for propelling loads on/off a first or second end;
 - an elongate, generally horizontal deck 2.2.1.2, 2.2.1.4 for supporting rows of multiple pallets that form individual loads; means for elevating (FIG. 4) and means 2.2.1.4 for propelling rows of pallets in a generally horizontal direction relative to an elongate deck.

Stage further discloses that traveling conveyor 2 moves parallel to a loading edge alignment with a storage rack, and appears to disclose two parallel guides on a floor in FIG. 2. Staegge does not explicitly disclose means for selectively moving a conveyor, and a feed conveyor and loading/unloading conveyor.

Atwater's means 44 are the functional equivalent of a means moving between locations (i-iii). Atwater discloses a warehousing system comprising-

- a feed conveyer branch 30;
- an unloading conveyer 26, 32, 28a;
- a traveling conveyor 16 including means 70, 72 for propelling loads on/off a traveling conveyor of first or second ends.
 - and further including means 44 for selectively moving a traveling conveyer between:

- (i) a location in which a traveling conveyer 16 is aligned with a feed conveyer 24 for receiving cargo from a feed conveyor;
- (ii) locations in which a traveling conveyor is aligned a storage racks 12 for discharging palletized cargo to storage racks; and
- (iii) a location in which a traveling conveyor is aligned with a loading conveyor 26 for receiving or discharging cargo to an unloading conveyor.

Atwater teaches an automatic warehousing system for storing and unstoring loads having means as noted above such that an operator can pick orders as well as stock/unstock a rack. C1/L20-25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staegle to include means for selectively moving a traveling conveyor, as per the teachings of Atwater, to allow simultaneous picking and stocking/unstacking.

Suizu discloses a traveling conveyor 22, 23 that aligns with a feed conveyor 42 (or loading conveyor 43) and storage racks 1 and that is connected to a loading dock 56, each comprising an elongate generally horizontal end portion having sufficient length to support multiple pallets that form individual loads of palletized cargo. Suizu further discloses aligning a traveling conveyor deck 22, 31, 23, 35 (C4/L38-C5/L28) that aligns longitudinally (in the direction of pallet travel). Suizu teaches a storage rack system combined with infeed and load conveyors to improve on automation within the well known art of warehousing by improving on efficiencies of rate of storage and retrieval of palletized loads. C1. Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify the apparatus of Staegé to include a traveling conveyor in combination with a feed conveyor, storage racks, load conveyor connected to a loading dock, each comprising an elongate generally horizontal end portion having sufficient length to support multiple pallets that form individual loads of palletized cargo and a longitudinally alignable traveling conveyor, as per the teachings of Suizu, improve on the in/out times for a warehouse.

Proske discloses traveling conveyor means 11, 12, 13, 14, 15 (C10/L5-20) for propelling loads in a first (generally indicated as 17) and second (generally indicated as 18) generally horizontal directions relative to an elongate deck so as to be able to move rows of pallets off first or second ends of an elongate deck. Proske teaches a traveling conveyor in combination with feed and load conveyors and storage racks to reduce costs in warehousing. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staegé to include means for propelling loads in a first or second direction, as per the teachings of Proske, to reduce warehousing costs.

With respect to full loads that fill a length of a standard highway dry van (claim 1, lines 10-11, 16-17, 20-21, 23-25), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, a full load is defined by a user's requirements. For example within the trucking industry a common and well known shipment quantity is less-than-truckload shipments

(referred to as LTL) where customers order quantity does not physically cube out the internal space of a truck/van. However, when placed on the truck it is a full load that fills a length because a customer requires an amount to meet its respective order. Thus, while not filling the cubed out space of a truck it is a full load filling a length because no more will fit on that length. In the alternative, claim 1 does not preclude conveying pallets consecutively, i.e. one at a time, in a row. Conveying consecutively a required amount for a end customer, i.e. that fills a dry van requires a conveyor that is of sufficient length to support rows of multiple pallets. In other words, feed and traveling conveyors could convey one container every hour but as long as they conveyed enough containers to meet a customers requirements a full load has been conveyed.

With respect to claim 5, Staege discloses a traveling conveyor deck that is movable, and does not explicitly disclose wheeled chassis and a track. Atwater discloses a wheeled chassis 44 and a track 46 for guiding a wheeled chassis between locations in which a palletized cargo is received or discharged. Atwater teaches an automatic warehousing system for storing and unstoring loads such that an operator can pick orders as well as stock/unstock racks. C1/L20-25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staege to include a wheeled chassis and track, as per the teachings of Atwater, to allow simultaneous picking and stocking/unstacking.

Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater and Suizu and further in view of Carder et al. (US 4,304,518) (previously cited). Staege does not disclose a scissor jack mechanism. Carder discloses

a traveling conveyor 34, 36 having a scissor jack mechanism 22, 24 which are more reliable in maintaining alignment between a traveling conveyor and a delivery location such as a second conveyor or airplane. C1/L5-20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the lift of Stage to include a scissor jack mechanism, as per the teachings of Carder et al., to improve on alignment reliability.

Claims 7-8, 10-11 & 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and further in view of Tharpe (US 5,887,699) (previously cited).

With respect to claims 7-8, Staege does not disclose a diverter. Tharpe discloses a feed conveyor 40 comprising a branch portion 40 which diverges from a main portion 14, means for selectively diverting pallets comprising a sweep arm 52 and means 56 for selectively extending a sweep arm 56 to identify individual articles being conveyed along a primary conveyor and sorting selected articles for distribution along secondary conveyors extending in a direction lateral to the primary conveyor. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the invention of Staege to include a diverter, as per the teachings of Tharpe, to sort items and direct them to separate them according to the portion of feed conveyor they are designated for.

With respect to claims 10-11 & 14, Thornton discloses a rigid, extensible dock member having an upper surface 71 for supporting a load of palletized cargo; means 155 for extending a dock member into an interior of a transport vehicle 11 so as to carry

a load of palletized cargo 7 into or out of a transport vehicle en masse; and means 191 for selectively restraining a load of palletized cargo within a vehicle interior as an extensible dock member is withdrawn therefrom. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Weir's dock member to include means for restraining, as per the teachings of Thornton, such that during dock member removal a load remains in a truck.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and further in view of Ringer (US 4,093,084) (previously cited). Staege does not disclose a bypass portion with means for displacement. Ringer discloses a bypass segment 21 to connect branch portions to an unloading conveyor and means for displacing a bypass segment because interconnecting multiple incoming transport vehicles, i.e. trains, with multiple outgoing transport vehicles minimizes loading/unloading time because loads are routed directly to without intermediate storage, unless said intermediate storage is necessary. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staege to include a bypass portion with means for displacement, as per the teachings of Ringer, such that loading/unloading time is minimized because loads are sent directly from an inbound vehicle to an outbound vehicle without intermediate steps.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and Thornton and further in view of Barski (US 3,042,230) (previously cited). Barski discloses a push plate 23 and means 20 for

extending a push plate for shifting stacks of cases from one conveyor to a second conveyor minimizing canting of stacks. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Staege's apparatus to include a push plate and means for extending, as per the teachings of Barski, such that stacks of cases may be transferred from one conveyor to a second without a need for canting of stacks.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and Thornton and further in view of Winski (US 5,562,403) (previously cited). Winski discloses an unloading paddle 34, means for selectively moving a paddle 36 and means for translating an unloading paddle (C7/L63 – C8/L20) such that when mounted to a vehicle which repositions shippable goods selectively pushing objects from one conveyor to a second provides for different production steps to take place. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Staege's system to include a paddle and means for selectively moving a paddle, as per the teachings of Winski, such that goods can be moved from one conveyor to a second.

Claims 16-18 & 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holz (US 6,056,497) (previously cited) in view of Thornton (US 5,054,987) (previously cited) and Lang (US 4,170,292) (previously cited).

With respect to claims 16-18 & 22, Holtz discloses a paddle 40 and means 26 for translating an unloading paddle in a deployed position from an outer end of an extensible dock member to proximate an inner end of a deck member, so as to push a

palletized cargo off of an extensible dock member and onto a loading/unloading conveyor at an inner end of a dock member. Holtz does not disclose a dock member and means for extending a dock member into a transport vehicle, restraining means and means for moving a paddle between retracted and extended positions.

Thornton discloses-

- a rigid, extensible dock member 1 having an upper surface, a beveled edge and a thin rigid plate member 41;
- means 13 for extending said dock member into an interior of a transport vehicle so as to carry said load of palletized cargo into or out of said transport vehicle en masse; and
- means 191 for selectively restraining said load of palletized cargo within said interior of said vehicle as said extensible dock member is withdrawn therefrom;

Thornton teaches loading trucks over individual loaders uses a lower profile and reduces dock modifications. C1/L25-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz to include a dock member and means for extending and restraining, as per the teachings of Thornton, to completely load or unload freight trailers.

Lang discloses means 13 for selectively moving an unloading paddle from a retracted position in which an unloading roller 60 is positioned beneath an upper surface (indicated generally as 50) of an extensible dock member, to a deployed position in which an unloading paddle projects above an upper surface of an extensible dock member

proximate an outer end of a dock member. Lang improves on means for selective transfer such as Holtz's by reducing dirt and other abrasive material which "occasionally clogs and causes wear to paddle tracks." C1/L15-30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz to include means for moving an unloading paddle, as per the teachings of Lang, to reduce wear causing dirt and abrasive material.

With respect to claims 23-26, Thornton discloses-

- drive means 5 for translating a plate member into and out of a vehicle;
- discloses rollers 71, 75;
- rollers spaced distances from inner and outer ends;
- and ball bearings (C6/L25-50).

Thornton teaches loading trucks over individual loaders uses a lower profile and reduces dock modifications. C1/L25-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz as per the teachings of Thornton to completely load or unload freight trailers.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holtz in view of Thornton, Lang and Barski (US 3,042,230) (previously cited). Holtz does not disclose a push plate or means for extending a push plate. Barski discloses a push plate 23 and means 20 for extending a push plate for shifting stacks of cases from one conveyor to a second conveyor minimizing canting of stacks. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify Thornton's system to include a push plate and means for extending a push plate, as per the teachings of Barski, such that stacks of cases may be transferred from one conveyor to a second without a need for canting of stacks.

Allowable Subject Matter

Claims 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 27 currently depends directly from independent claim 16. However, claim 27 would likely be allowed if rewritten in independent form including all of the limitations of independent claim 1.

Response to Arguments

Applicant's arguments filed April 27, 2009 have been fully considered but they are not persuasive. The examiner does not agree with Applicants interpretations.

Initially, the examiner accepts Applicants arguments that there are standard van configurations well known within the industry. The Applicant has stated on the record these specifications. The examiner notes its own experience including twelve years in the shipping industry with PPG Industries from 1989-1991 in which the examiner was responsible for coordinating shipments based on customers' requirements, acquiring trucks, loading trucks and directing trucks to customers. To that end and with respect to full loads that fill a length of a standard highway dry van (claim 1, lines 10-11, 16-17, 20-21, 23-25, Applicant defines a full load as filling "a length" of a dry van but does not specify whether this length is 40 inches or 40 feet. However, a user may define a full

load as 4 pallets or 20 pallets depending on pallet size, article density, pallet height, stacked pallets, shelves on truck etc. For example, Staege discloses "a length" as two shelves supporting three rows of seven pallets. Thus, a length is filled which according to claim 1 is a full load. For example within the trucking industry a common and well known shipment quantity is less-than-truckload shipments (referred to as LTL) where a customer has an order quantity that does not utilize the cubed out space of a truck. However, when placed on the truck it is a full load that fills a length because no more will be shipped. In the alternative, claim 1 does not preclude conveying pallets consecutively, i.e. one at a time, in a row. In other words, feed and traveling conveyors could convey one container every hour but as long as they conveyed enough containers to meet a customers requirements a full load has been conveyed. Merely arguing an intended use is given less patentable weight than positively reciting the structure which performs the intended use.

Proske disclose traveling conveyor means to proper loads on (or off) both a first end and a second end. It is further noted that this is a well known feature in warehousing to have a traveling conveyor that traverses a center aisle depositing and picking up a shelves spaced on either side of said aisle. And, Proske's rollers are the function equivalent of conveyor belts.

With respect to claim 16, the equivalent structure as noted in the chart in the rejection above is a paddle connected to chains. Holz discloses paddle 40 on chains 28; Lang discloses paddle 60, 60' propelling by draw cable 21. Thus, pursuant to 37 CFR 1.75(d) and MPEP §§ 608.01 and 2181, applicant is required to: (A) explicitly state on

the record that structure in Applicant specification by paragraph, line and ref. character which it considers to be the correct means, or (B) amend the claims removing the means-plus-function recitation. And, the fact that applicant has recognized a disadvantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY W. ADAMS whose telephone number is (571)272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Gregory W Adams/
Primary Examiner, Art Unit 3652